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# **Imagery Analysis Monthly Review**

**March 1979**

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*April 1979*

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# Imagery Analysis Monthly Review

March 1979

The information and judgments presented in this publication were derived principally from analysis of imagery. Although information from other sources of intelligence may be included for background, this publication does not reflect an all-source assessment and has not been formally coordinated within CIA. (U)

Comments and queries on the contents of this publication are welcomed. They should be directed to the analyst whose name and green line extension appear after each article. (U)

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[redacted] Scud training exercise at Ulan-Ude as well as photographic coverage of that facility indicate that the Scud brigade located there will be upgraded from 12 to 18 launchers. [redacted]

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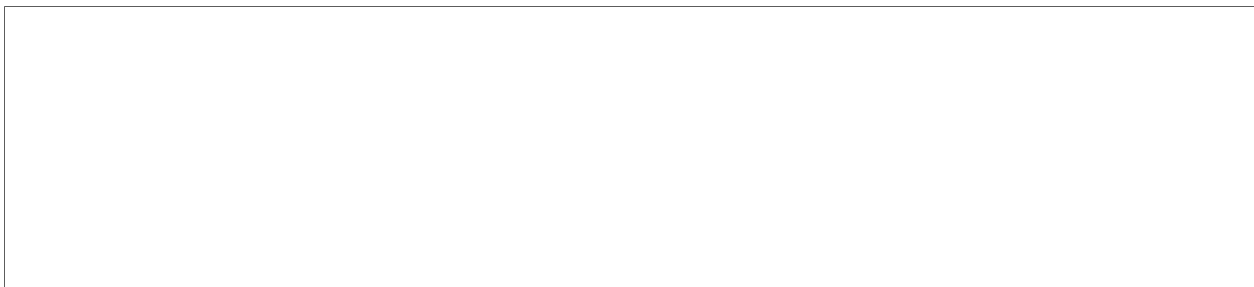
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USSRProbable Upgrading of Scud Brigade in Near Future (U)

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Photography [redacted] indicates that the Soviets were only simulating the increase to 18 launchers, probably for command/communications training. There has been no increase in the equipment holdings to account for the six additional TELs and their associated equipment. Equipment involved in the exercise included three closely grouped wheeled TELs, each probably representing one battalion of the brigade, and two resupply trailers involved in a missile transloading exercise. A third resupply trailer probably was located in a missile-ready tent in the motor pool. The complement of approximately 200 vehicles and pieces of equipment normally associated with a 12-TEL Scud brigade was in the motor pool where it has been seen stored in subunit structure in open storage since September 1976. (TSR)

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In addition [redacted] there is evidence that facilities are being built to house additional TELs and resupply vehicles. Two vehicle sheds, each with 16 bays, had been constructed at the installation housing the brigade. After they were completed, the TELs and resupply vehicles were no longer seen in open storage, indicating that they were built specifically for this equipment. Construction on a third, similar vehicle shed was started in early February 1979. This shed was nearing completion in mid-March and will probably be used to house the six additional TELs and resupply vehicles. (TSR [redacted])

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USSRFacilities Being Improved at Pacific Fleet  
Submarine Repair Base (TSR)

Imagery of Dunay Submarine Base and Ship Repair Yard Razboynik Bay obtained since mid-1976 reveals that the Soviets are improving this Pacific Fleet repair yard. Although to date this yard has been involved primarily in refitting and refueling nuclear-powered submarines, the new facilities at Razboynik Bay will be capable of performing full overhauls on nuclear-powered submarines--including D-III-class ballistic missile submarines. The upgrading of facilities at Razboynik Bay includes the construction of a large shop/engineering building similar to those built at several other Soviet submarine repair bases; extensive excavation activity in preparation for what might be the construction of an on-land, covered repair hall; the basing at Razboynik Bay of a large, Japanese-built floating drydock; and the construction of new apartments, a substation, and a rail spur to serve the facility. (TSR)

Landfilling of an area west of the berthing piers at Razboynik Bay in mid-1976 was the first indication of expansion. Photography one year later revealed that pilings were being driven into this landfilled area to support the vertical columns of a new four-bay, 258- by 122-meter shop/engineering building which is now about half complete. Extensive excavating seen at Razboynik Bay in 1978 indicates that the Soviets may be in the very early stage of constructing a covered submarine repair hall similar in size to the one at Olenya Guba Submarine Repair Base, which is 220 by 48 meters. A fairly flat area measuring 170 by 130 meters has been excavated at Dunay, and there appears to be no restriction to making this area much larger. In addition, the dredging of a 290- by 138-meter channel in front of this area from August 1977 to October 1978 could be the initial work on a submerging trench. A submerging trench would make the channel deep enough to accommodate a floating drydock. Submarines could then be moved in and out of the repair hall by means of the floating drydock, which is the same method for moving submarines as that used at Olenya Guba. (TSR)

A 330-meter-long, Japanese-built floating drydock, which arrived at Razboynik Bay in October 1978, also enhances the overall capability of this base. The Soviets spent almost seven months prior to October 1978 dredging a deep submerging trench at the mooring area to accommodate this large floating drydock. (TSR)

There are other indications that the Soviets have been expanding and upgrading the facilities at Razboynik Bay since mid-1976. Since that time, construction has begun on 560 family-type apartment units. Some have been completed and some are still under construction. Also, a new power substation is nearing completion near these apartments, and a rail spur--the first to serve this facility--is also under construction. (TSR)

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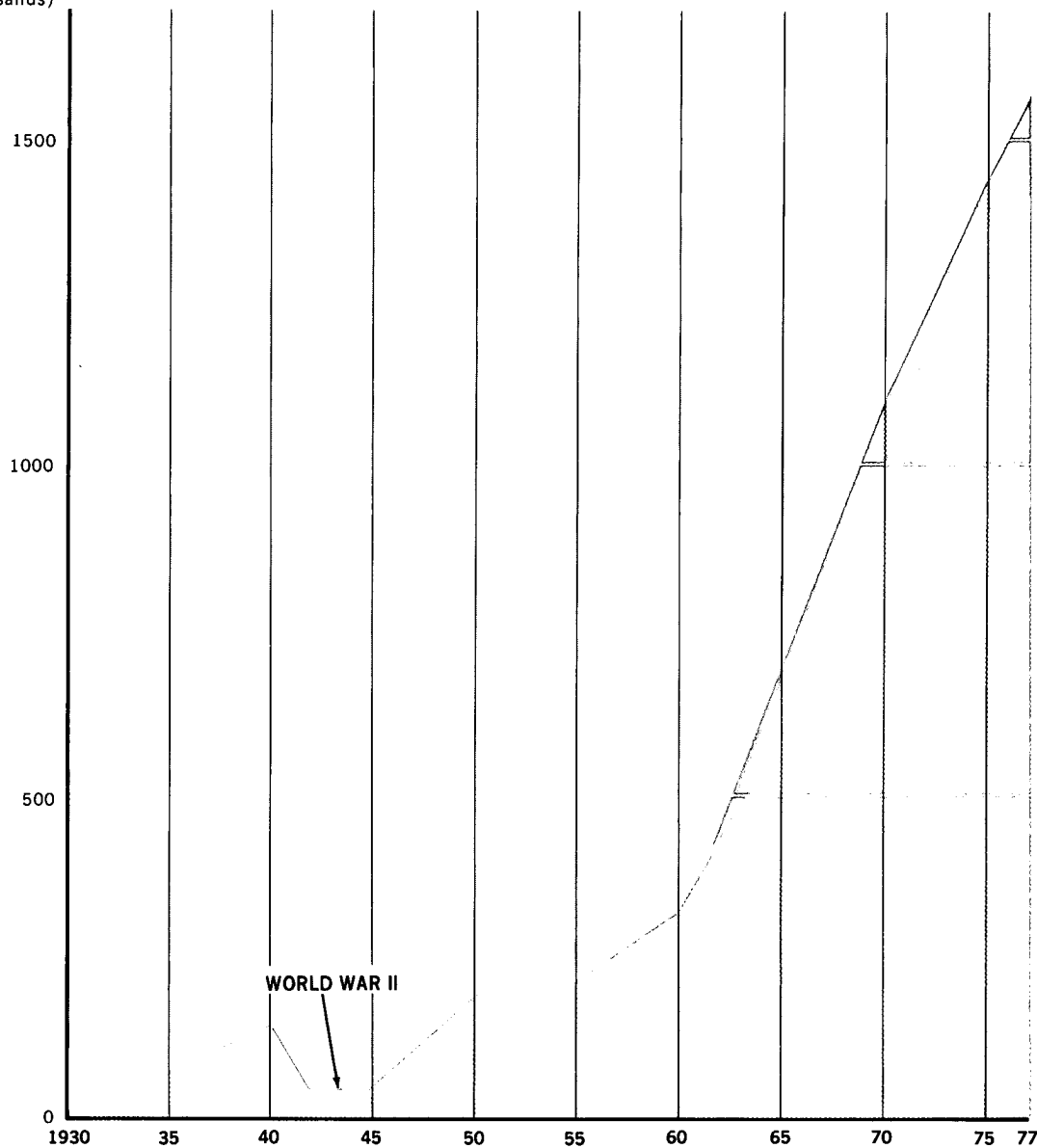
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# Growth of Soviet Synthetic Rubber Capacity (U)

Metric Tons  
(Thousands)



Midpoint figure assuming that the plants are operating at 10 percent above design capacity. (U)

Midpoint figure assuming that the plants are operating at design capacity. (U)

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USSRSoviet Synthetic Rubber Industry (U)

A recently completed photographic study indicates that the Soviet Union has developed the capability to produce most of the major types of synthetic rubber. Production capacity has increased rapidly since the early 1960s, and in the 1970s the Soviets began large-scale production of polyisoprene and polybutadiene synthetic rubbers--the two most versatile substitutes for natural rubber. As a result, the Soviet Union has been able to substantially reduce its reliance on imports of natural rubber, especially for its tire industry. Based on photographic and collateral information, it is estimated that 80-85 percent of the rubber used in the Soviet Union in 1977 was synthetic. (TSR)

The Soviets have 14 synthetic rubber plants in operation and one under construction. Photographic analysis indicates that the 14 operating plants had a design capacity of between 1,295,000 and 1,545,000 metric tons (mt) of synthetic rubber in 1977, the midpoint being 1,420,000 mt. If Soviet rubber plants are operating at 10 percent above design capacity--which seems reasonable [redacted]--the capacity range would be 1,425,000 to 1,700,000 metric tons per year (mt/yr), the midpoint being 1,562,500 mt/yr. This midpoint figure is the equivalent of approximately 60 percent of US production and about 20 percent of world production. (TSR)

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For additional information see IS 79-10007K, [redacted] Soviet Synthetic Rubber Industry, March 1979 (TSR)

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ChinaNew Shipyard Under Construction in Shanghai (TSR)

Imagery of late January 1979 confirms previous photographic indications that the Chinese are constructing a new shipyard in Shanghai (Shang-hai). This shipyard will have four level building ways, and ships constructed on those ways will be launched by means of a launching dock. At this time, only two other Chinese shipyards, both located in southern China, utilize this method of launching. Because no outfitting facilities are present at the new yard, ships launched from the building ways there probably will be outfitted at a recently completed offshore wharf located upstream. Based on the length of the building ways, this shipyard could be capable of constructing combatants up to destroyer size or commercial vessels up to 5,000 tons. (TSR)

Construction of this shipyard began in the summer of 1978. In January 1979, construction was continuing on the four 145- by 10-meter building ways, each of which contains a four-track rail system for moving ships. The center-to-center distance between the two outside rails of these four-track systems is 6 meters, a rail spacing which is present at other Chinese shipyards. The building ways will be separated into two groups by a 10-meter-wide craneway. A crane was being erected on the craneway in January. There also were indications at that time that a notched quay was being constructed at the foot of the ways. The notches in the quay will be used to align the launching dock. A series of pedestals seen in the Huangpu (Huang-pu) River probably are intended to support the launching dock while a ship is being moved into it. To date, there is no evidence that construction on the launching dock has begun at any of the shipyards in the Shanghai area. (TSR)

The new shipyard is being constructed between two existing shipyards: Zhonghua (Chung-hua) Shipyard, which has constructed guided-missile destroyers, naval auxiliaries, a tank landing ship, and civilian merchant ships, and the Marine Products Shipyard, which specializes in the overhaul and repair of fishing boats. At present, it cannot be determined what types of ships will be constructed at the new yard. What appeared to be one section of ship bottom plate was seen partially resting on one of the building ways in January. This section could not be identified as being for any particular type of ship, but it was for a ship larger than those seen at Marine Products Shipyard. Although no fabrication or shop buildings are currently under construction at the yard, the presence of this probable bottom plate indicates that ships most likely will be built rather than repaired at this facility. (TSR)

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Sweden/USSRLarge Drydock in Sweden Is Probably Being  
Built for the Soviets (S)

A large floating drydock seen under construction on imagery of [ ] at the Arendal Gotaverken Shipyard in Goteborg, Sweden, is probably the 80,000-metric-ton-capacity dock reported by various intelligence sources to have been ordered by the Soviet Union. A dock which is similar in design and identical in capacity was recently obtained by the Soviets from Japan. It is now being used by the Soviet Navy at Dunay Submarine Base and Ship Repair Yard Razboynik Bay in the Pacific. (TSR)

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The drydock under construction at Goteborg is being built in sections. One section is already afloat and two others are being assembled in one of the shipyard's building basins. As the sections of the drydock are completed, they probably will be floated out of the basin and joined together in the water. Measurements of the sections indicate that the Swedish-built dock will have a width of about 80 meters between its outside walls and a working deck width of about 70 meters. The total height of the dock is about 30 meters, while the height of the inner walls is 23 meters. The overall length of each of the sections is 42 meters. The length of the dock sections has been limited to 42 meters because the building basin in which the sections are assembled is only 45 meters wide. The overall length of the completed dock probably will be about the same as that of the Japanese-built dock--approximately 330 meters. (TSR)

[ ] the Soviets have announced that the new drydock will be used in the Northern Fleet area to repair merchant ships. The Soviets had also announced that the Japanese-built dock would be used to repair merchant ships in the Pacific. However, the Japanese-built dock appears to be under the control of the Soviet Navy and has been used to repair a Delta-I-class ballistic missile submarine. An 80,000-ton dock would be capable of servicing the largest ships currently in or projected for the Soviet naval inventory. This includes the Kiev-class aircraft carriers and other large surface ships such as the 189A. (TSR)

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New OIA Publications

The following reports have been published by the Office of Imagery Analysis since the last issue of the Imagery Analysis Monthly Review.

1. IS 79-10013K, [ ], South African National Institute of Defence Research, Firgrove, January 1979 (TOP SECRET [ ]) 25X1  
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2. IS 79-10008J, [ ], Soviet Army and Army Corps Signal Regiments: Deployment, Organization, and Equipment, February 1979 (TOP SECRET MULTIPLE [ ]) 25X1  
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3. IS 79-10051K, [ ], Checkout Activity at SL-12 and SL-13 Launch Facilities, Tyuratam Missile/Space Test Center, March 1979 (TOP SECRET RUFF) 25X1
4. IS 79-10006K, [ ], Developments in the Urengoy Gasfield, USSR, March 1979 (TOP SECRET RUFF) 25X1
5. IS 79-10028K, [ ], Probable Chinese Duplication of Imported Ammonia and Urea Technology at a Plant in Shanghai, March 1979 (TOP SECRET RUFF) 25X1
6. IS 79-10007K, RCS-13/0003/79, [ ], Soviet Synthetic Rubber Industry, March 1979 (TOP SECRET RUFF) 25X1
7. IS 79-10019K, RCS-13/0002/79, [ ], Paengma-ri Petroleum Refinery, North Korea, February 1979 (TOP SECRET RUFF) 25X1
8. IS 79-10044K, RCS-13/0004/79, [ ], Vynylon Plants in China, March 1979 (TOP SECRET RUFF) 25X1

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